

3M Electrical Markets Division
3M™ MV Cold Shrink Cable Accessories



THORNE &
DERRICK
INTERNATIONAL

Thorne & Derrick

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Trust
in Experience

**3M™ Medium Voltage Cold Shrink
Cable Jointing Products**



3M™ Electrical Markets Division

3M's success is founded on listening to the customer's needs and applying technology to offer a solution. With hundreds of technology platforms 3M has an ongoing commitment to research and development.

Within the Electrical Markets Division this method of working has not only led to the development of the first ever vinyl insulation tape, but also to the conception of 3M™ Cold Shrink more than 30 years ago. 3M Cold Shrink technology has been found to be a safer, more reliable and easier to install solution for medium and high voltage jointing and terminating versus conventional heat shrink alternatives. It is a preferred solution of power utilities, private power network operators and electrical specifiers globally. 3M strives to be the chosen supplier because of its innovative and efficient products combined with its commitment to service and support for your business.

Medium & High Voltage Cable Accessories

After many years of developing our 3M Cold Shrink range in line with our customers needs, we are proud to offer contractors a wide range of time and money saving joints and terminations to fit almost any application:

Why move to 3M Cold Shrink?

- Less chance of damaging XLPE cable material
- Less room for jointer error
- No special site permits needed
- No cooling time needed before energising
- Easier to use in enclosed areas

3M Cold Shrink technology offers **five star** performance:

- ★ Many components have one-part construction
- ★ Simple, tool-free installation
- ★ Permanent radial pressure
- ★ Extensive quality and factory testing programmes
- ★ Lower installed cost - compared to many competitive products



over **10 million**
3M Cold Shrink products
installed worldwide

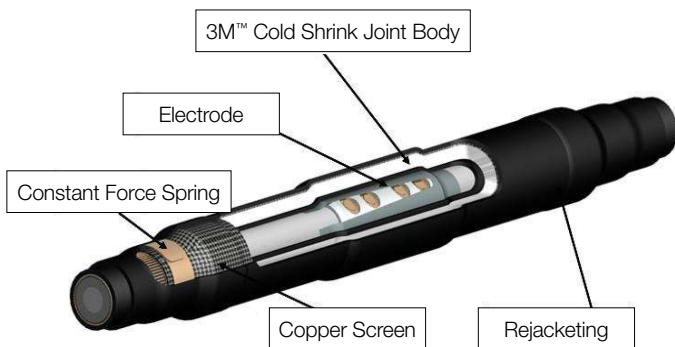


3M™ Cold Shrink Cable Jointing Products

All 3M™ Cold Shrink cable joints include built in components to ensure either good insulation, stress control or adequate earth potential over the screens. With peace of mind and reliability top of our agenda; unlike heat shrink alternatives, a molecular permanent set ensures constant radial pressure is exerted on the cable for the duration of the cable joints' life. Additionally, many of the joint bodies are comprehensively factory tested before release - something simply not possible with heat shrink due to its' material nature. Finally, as a result of continuous development and refinement over more than 30 years, only 3M can offer you such a choice in Cold Shrink technology in terms of product cost and flexibility in its application.

Premium 3M™ Cold Shrink Joints with Integrated Electrode

Adopted by dozens of power utilities across the world as their preferred cable jointing solution, this range is our premium line and offers a built in semi conductive electrode - saving the need to use tape and so delivering even more consistency of installation. Covering almost any cable configuration and size, this range can provide a solution for voltage classes up to 72kV (U_{max}) and has been widely tested to a variety of standards across the world.

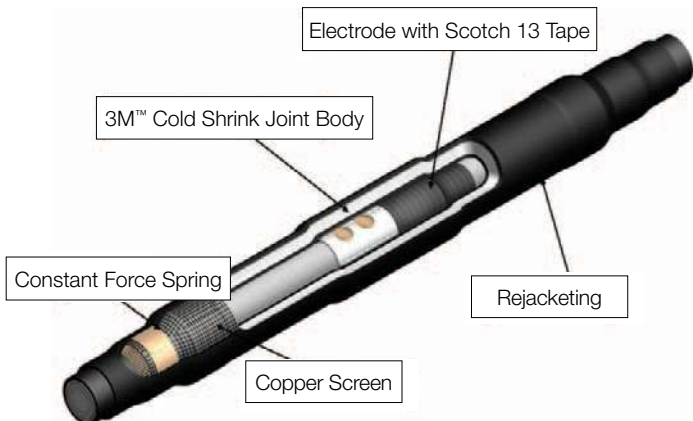


Standard 3M™ Cold Shrink Joints with Taped Electrode

Our newest product, the 3M™ Cold Shrink taped electrode splice offers a viable cost-based alternative to heat shrink cable jointing technology. This range covers many of the most common cable configurations and size ranges unique to the UK market. The electrode in this case is built up by the jointer using Scotch® 13 Electrical Semi-Conducting Tape and the 3M Cold Shrink splice does the rest - still no heat or tools needed at all!

The simple application of a 3M™ Cold Shrink Cable Joint

- 1 Park the 3M™ Cold Shrink splice body onto the prepared cable, connect the cores and clean thoroughly
- 2 Thoroughly grease the connected cable in preparation for the splice body
- 3 Once in position, begin to remove the inner coil from the joint body
- 4 For extra peace of mind, take advantage of the fact that splice body position is easily checked
- 5 Place the earth stocking over the splice body. Ground and secure with 3M™ Constant Force Springs
- 6 Insulate the constant force springs with Scotch® 23 Rubber Splicing Tape and then overlay with Scotch® Rubber Mastic Tape 2228
- 7 Position the pre-parked 3M™ Cold Shrink Outer Protection Tube over the stocking and begin to remove the inner supporting core
- 8 Continue to remove the inner core until the outer tube is fully shrunk, completing the cable joint



STFF Shield

Smoke, Toxicity, Flame, and Fume protection for Cable accessories.

The unique 3M STFF Shield range is designed for use with all single and three core polymeric cold shrink joints, as well as for cable abandonment applications at Low voltage.

The addition of the STFF Shield will allow standard joints and accessories to be installed in areas such as underground rail, tunnels, and any application where flame retardant, low toxicity products are required.



- Halogen Free
- Tested to London Underground Standard 1-085.
- Smoke Emission and Toxic Fume Emission testing has been carried out following the test methodology for BS EN50268-2:2000 and BS 6853:1999 Annex B.2.
- Compliant with EU directive 2002/95/EC (RoHS) and EU regulation 1907/2007/EC (REACH)

Helping Contractors Make the Change

Product Training and Demonstration

We take training seriously and have a long track record of working closely with our customers to give them the best 3M product training possible. Of course, the design of our products helps to ensure consistently high installation quality. We recognise that the right installation techniques means that work is carried out more accurately, safely and quickly. Most importantly, training helps joints and terminations to last longer with reduced failure risk, giving you a better return on your investment.

Product Demonstrations

Fully demonstrate and install 3M products into pre-prepared cables

Product Installation Training

3M product installation training and cable preparation requirements

Utility Approved Product Installation Training

We can recommend the correct company for training

Electrical Supplies & Ancillary Products

Besides our wide range of medium voltage cable accessory products, 3M brings a broad range of products to the market place – many of which were originally developed by 3M!



To help with the challenges of working with electrical cable in a variety of environments, 3M has a range of products that make all kinds of tasks much easier to manage, including:

- Cable cleaning wipes
- Cable pulling lubricant
- Cable cleaning solvents
- Cable marking products



Having invented the PVC insulation tape more than 60 years ago, the 3M range of electrical tapes is one of the broadest in the world. Our range incorporates the following:

- PVC insulation tapes
- Self-amalgamating tapes
- Mastic sealing tapes
- Phase marking tapes
- Corrosion protection tapes
- Semi-conducting tapes

For more information on 3M electrical products please call our information line



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